

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Please add new claim 105 as follows:

1. (Previously Amended) A method, comprising:

receiving information over a communications network;

identifying a retriever's input analysis capabilities;

retrieving customizable inheritable validation rules appropriate for the retriever's input analysis capabilities from a hereditary rules library stored in a memory device;

and

determining computer data validity by applying the retrieved customizable inheritable validation rules to the information.
2. (Previously Amended) The method of claim 1, further comprising highlighting information determined to be invalid by the customizable inheritable validation rules.
3. (Previously Amended) The method of claim 1, wherein the customizable inheritable validation rules are provided to a client.
4. (Previously Amended) The method of claim 1, wherein the customizable inheritable validation rules are provided to a server.

5. (Previously Amended) The method of claim 1, wherein the customizable inheritable validation rules are imbedded into a web page.

6. (Previously Amended) The method of claim 1, wherein the customizable inheritable validation rules are executable both on a client and server.

7. (Previously Amended) A system, comprising:
means for receiving information over a communications network;
means for identifying a retriever's input analysis capabilities;
means for retrieving customizable inheritable validation rules appropriate for the retriever's input analysis capabilities from a hereditary rules library stored in a memory device; and
means for determining computer data validity by applying the retrieved customizable inheritable validation rules to the information.

8. (Previously Amended) The system of claim 7, further comprising means for highlighting information determined to be invalid by the customizable inheritable validation rules.

9. (Previously Amended) The system of claim 7, wherein the customizable inheritable validation rules are provided to a client.

10. (Previously Amended) The system of claim 7, wherein the customizable inheritable validation rules are provided to a server.

11. (Previously Amended) The system of claim 7, wherein the customizable inheritable validation rules are imbedded into a web page.

12. (Previously Amended) The system of claim 7, wherein the customizable inheritable validation rules are executable both on a client and server.

13. (Previously Amended) Computer executable software code stored on a computer readable medium, the code, comprising:

code for receiving information over a communications network;

code for identifying a retriever's input analysis capabilities;

code for retrieving customizable inheritable validation rules appropriate for retriever's input analysis capabilities from a hereditary rules library stored in a memory device; and

code for determining computer data validity by applying the retrieved customizable inheritable validation rules to the information.

14. (Previously Amended) The medium of claim 13, further comprising code for highlighting information determined to be invalid by the customizable inheritable validation rules.

15. (Previously Amended) The medium of claim 13, wherein the customizable inheritable validation rules are provided to a client.

16. (Previously Amended) The medium of claim 13, wherein the customizable inheritable validation rules are provided to a server.

17. (Previously Amended) The medium of claim 13, wherein the customizable inheritable validation rules are imbedded into a web page.

18. (Previously Amended) The medium of claim 13, wherein the customizable inheritable validation rules are executable both on a client and server.

19. (Previously Amended) An apparatus, comprising:
a memory device having at least one region for storing executable program code;

and

a processor, disposed in communication with the memory device, for executing the program code stored in the memory device, wherein the program code, further comprising:

code to receive information over a communications network;

code to identify a retriever's input analysis capabilities;

code to retrieve customizable inheritable validation rules appropriate for retriever's input analysis capabilities from a hereditary rules library stored in a memory device;

code to determine computer data validity by applying the retrieved customizable inheritable validation rules to the information.

20. (Previously Amended) The apparatus of claim 19, further comprising code to highlight information determined to be invalid by the customizable inheritable validation rules.

21. (Previously Amended) The apparatus of claim 19, wherein the customizable inheritable validation rules are provided to a client.

22. (Previously Amended) The apparatus of claim 19, wherein the customizable inheritable validation rules are provided to a server.

23. (Previously Amended) The apparatus of claim 19, wherein the customizable inheritable validation rules are imbedded into a web page.

24. (Previously Amended) The apparatus of claim 19, wherein the customizable inheritable validation rules are executable both on a client and server.

25. (Previously Amended) A method, comprising:

identifying data types requiring validation;

identifying a retriever's input analysis capabilities; and

providing customizable inheritable validation rules appropriate for the retriever's input analysis capabilities stored in a memory device for the associated data types from a hereditary rules library.

26. (Previously Amended) The method of claim 25, wherein the customizable inheritable validation rules are provided to a client.

27. (Previously Amended) The method of claim 25, wherein the customizable inheritable validation rules are provided to a server.

28. (Previously Amended) The method of claim 25, wherein the customizable inheritable validation rules are imbedded into a web page.

29. (Previously Amended) The method of claim 25, wherein the customizable inheritable validation rules are executable both on a client and server.

30. (Previously Amended) A system, comprising:
means for identifying data types requiring validation;

means for identifying a retriever's input analysis capabilities; and

means for providing customizable inheritable validation rules appropriate for the retriever's input analysis capabilities stored in a memory device for the associated data types from a hereditary rules library.

31. (Previously Amended) The system of claim 30, wherein the customizable inheritable validation rules are provided to a client.

32. (Previously Amended) The system of claim 30, wherein the customizable inheritable validation rules are provided to a server.

33. (Previously Amended) The system of claim 30, wherein the customizable inheritable validation rules are imbedded into a web page.

34. (Previously Amended) The system of claim 30, wherein the customizable inheritable validation rules are executable both on a client and server.

35. (Previously Amended) Computer executable software code stored on a computer readable medium, the code, comprising:

code for identifying data types requiring validation;

code for identifying a retriever's input analysis capabilities; and

code for providing customizable inheritable validation rules appropriate for the retriever's input analysis capabilities stored in a memory device for the associated data types from a hereditary rules library.

36. (Previously Amended) The medium of claim 35, wherein the customizable inheritable validation rules are provided to a client.

37. (Previously Amended) The medium of claim 35, wherein the customizable inheritable validation rules are provided to a server.

38. (Previously Amended) The medium of claim 35, wherein the customizable inheritable validation rules are imbedded into a web page.

39. (Previously Amended) The medium of claim 35, wherein the customizable inheritable validation rules are executable both on a client and server.

40. (Previously Amended) An apparatus, comprising:
a memory device having at least one region for storing executable program code;

and

a processor, disposed in communication with the memory device, for executing the program code stored in the memory device, wherein the program code, further comprising:

code to identify data types requiring validation;

code to identify a retriever's input analysis capabilities;

code to provide customizable inheritable validation rules appropriate for the retriever's input analysis capabilities stored in a memory device for the associated data types from a hereditary rules library.

41. (Previously Amended) The apparatus of claim 40, wherein the customizable inheritable validation rules are provided to a client.

42. (Previously Amended) The apparatus of claim 40, wherein the customizable inheritable validation rules are provided to a server.

43. (Previously Amended) The apparatus of claim 40, wherein the customizable inheritable validation rules are imbedded into a web page.

44. (Previously Amended) The apparatus of claim 40, wherein the customizable inheritable validation rules are executable both on a client and server.

45. (Previously Amended) A method, comprising:
providing a hereditary rules library having an initial parent rule stored in a memory device;

identifying retriever input analysis capabilities; and

building customizable inheritable validation rules appropriate for a retriever's input analysis capabilities by subclassing members of a hereditary rules library class hierarchy.

46. (Previously Amended) The method of claim 45, further comprising storing subclassed customizable inheritable validation rules in the hereditary rules library.

47. (Previously Amended) The method of claim 45, wherein the subclassed customizable validation rules inherit validation logic from a parent rule.

48. (Previously Amended) The method of claim 45, wherein the customizable inheritable validation rules are associated with data types.

49. (Previously Amended) The method of claim 45, wherein the customizable inheritable validation rules are imbedded into a web page.

50. (Previously Amended) The method of claim 45, wherein the customizable inheritable validation rules are executable both on a client and server.

51. (Previously Amended) A system, comprising:
means for providing a hereditary rules library having an initial parent rule stored in a memory device;
means for identifying retriever input analysis capabilities; and

means for building customizable inheritable validation rules appropriate for a retriever's input analysis capabilities by subclassing members of a hereditary rules library class hierarchy.

52. (Previously Amended) The system of claim 51, further comprising means for storing subclassed customizable inheritable validation rules in the hereditary rules library.

53. (Previously Amended) The method of claim 51, wherein the subclassed customizable inheritable validation rules inherit validation logic from a parent rule.

54. (Previously Amended) The system of claim 51, wherein the customizable inheritable validation rules are associated with data types.

55. (Previously Amended) The system of claim 51, wherein the customizable inheritable validation rules are imbedded into a web page.

56. (Previously Amended) The system of claim 51, wherein the customizable inheritable validation rules are executable both on a client and server.

57. (Previously Amended) Computer executable software code stored on a computer readable medium, the code, comprising:

code for providing a hereditary rules library having an initial parent rule stored in a memory device;

code for identifying retriever input analysis capabilities; and

code for building customizable inheritable validation rules appropriate for a retriever's input analysis capabilities by subclassing members of a hereditary rules library class hierarchy.

58. (Previously Amended) The medium of claim 57, further comprising code for storing subclassed customizable inheritable validation rules in the hereditary rules library.

59. (Previously Amended) The method of claim 57, wherein the subclassed customizable inheritable validation rules inherit validation logic from a parent rule.

60. (Previously Amended) The medium of claim 57, wherein the customizable inheritable validation rules are associated with data types.

61. (Previously Amended) The medium of claim 57, wherein the customizable inheritable validation rules are imbedded into a web page.

62. (Previously Amended) The medium of claim 57, wherein the customizable inheritable validation rules are executable both on a client and server.

63. (Previously Amended) An apparatus, comprising:

a memory device having at least one region for storing executable program code;

and

a processor, disposed in communication with the memory device, for executing the program code stored in the memory device, wherein the program code, further comprising:

code to provide a hereditary rules library having an initial parent rule stored in a memory device;

code to identify retriever input analysis capabilities;

code to build customizable inheritable validation rules appropriate for a retriever's input analysis capabilities by subclassing members of a hereditary rules library class hierarchy.

64. (Previously Amended) The apparatus of claim 63, further comprising code to store subclassed customizable inheritable validation rules in the hereditary rules library.

65. (Previously Amended) The method of claim 63, wherein the subclassed customizable inheritable validation rules inherit validation logic from a parent rule.

66. (Previously Amended) The apparatus of claim 63, wherein the

customizable inheritable validation rules are associated with data types.

67. (Previously Amended) The apparatus of claim 63, wherein the customizable inheritable validation rules are imbedded into a web page.

68. (Previously Amended) The apparatus of claim 63, wherein the customizable inheritable validation rules are executable both on a client and server.

69. (Previously Amended) A method, comprising:
marking data types for associated customizable inheritable validation rules from a hereditary rules library stored in a memory device;
identifying a retriever's input analysis capabilities; and
providing validation marked data types appropriate for the retriever's input analysis capabilities.

70. (Previously Amended) The method of claim 69, further comprising building forms with the customizable inheritable validation rules associated with marked data types.

71. (Previously Amended) The method of claim 69, further comprising storing forms with the customizable inheritable validation rules associated with marked data types.

72. (Previously Amended) The method of claim 69, further comprising providing forms with the customizable inheritable validation rules associated with marked data types over a communications network.

73. (Previously Amended) The method of claim 69, wherein the customizable inheritable validation rules are imbedded into a web page.

74. (Previously Amended) The method of claim 69, wherein the customizable inheritable validation rules are executable both on a client and server.

75. (Previously Amended) A system, comprising:

- means for marking data types for associated customizable inheritable validation rules from a hereditary rules library stored in a memory device;
- means for identifying a retriever's input analysis capabilities;
- means for providing validation marked data types appropriate for ~~a~~ the retriever's input analysis capabilities.

76. (Previously Amended) The system of claim 75, further comprising means for building forms with customizable inheritable validation rules associated with the marked data types.

77. (Previously Amended) The system of claim 75, further comprising means for storing forms with customizable inheritable validation rules associated with the

marked data types.

78. (Previously Amended) The system of claim 76, further comprising means for providing forms with customizable inheritable validation rules associated with the marked data types over a communications network.

79. (Previously Amended) The system of claim 75, wherein the customizable inheritable validation rules are imbedded into a web page.

80. (Previously Amended) The system of claim 75, wherein the customizable inheritable validation rules are executable both on a client and server.

81. (Previously Amended) Computer executable software code stored on a computer readable medium, the code, comprising:

code for marking data types for associated customizable inheritable validation rules from a hereditary rules library stored in a memory device;

code for identifying a retriever's input analysis capabilities;

code for providing validation marked data types appropriate for the retriever's input analysis capabilities.

82. (Previously Amended) The medium of claim 81, further comprising code for building forms with customizable inheritable validation rules associated with the

marked data types.

83. (Previously Amended) The medium of claim 81, further comprising code for storing forms with customizable inheritable validation rules associated with the marked data types.

84. (Previously Amended) The medium of claim 82, further comprising code for providing forms with customizable inheritable validation rules associated with the marked data types over a communications network.

85. (Previously Amended) The medium of claim 81, wherein the customizable inheritable validation rules are imbedded into a web page.

86. (Previously Amended) The medium of claim 81, wherein the customizable inheritable validation rules are executable both on a client and server.

87. (Previously Amended) An apparatus, comprising:
a memory device having at least one region for storing executable program code;

and

a processor, disposed in communication with the memory device, for executing the program code stored in the memory device, wherein the program code, further comprising:

code to mark data types for associated customizable inheritable validation rules from a hereditary rules library stored in a memory device;

code to identify a retriever's input analysis capabilities;

code to provide validation marked data types appropriate for the retriever's input analysis capabilities.

88. (Previously Amended) The apparatus of claim 87, further comprising code to build forms with the customizable inheritable validation rules associated with the marked data types.

89. (Previously Amended) The apparatus of claim 87, further comprising code to store forms with the customizable inheritable validation rules associated with the marked data types.

90. (Previously Amended) The apparatus of claim 88, further comprising code to provide forms with the customizable inheritable validation rules associated with the marked data types over a communications network.

91. (Previously Amended) The apparatus of claim 87, wherein the customizable inheritable validation rules are imbedded into a web page.

92. (Previously Amended) The apparatus of claim 87, wherein the customizable inheritable validation rules are executable both on a client and server.

93. (Withdrawn) A method, comprising:

- identifying browser capability;
- choosing a validation deployment, wherein the validation deployment comprising:
 - determining if a browser supports regular expressions, and if so, providing validation rules to a client;
 - determining if the browser supports non regular expression language, and if so, providing non regular expression language information validation;
 - determining if the browser does not support non regular expression language, and if not, providing regex enabled validation on a server;
 - providing the browser with appropriate network location and validation rules; obtaining information from a user; and
 - validating information with appropriate validation rules stored in a memory device.

94. (Withdrawn) The method of claim 93, wherein the validation rules are imbedded into a web page.

95. (Withdrawn) The method of claim 93, wherein the validation rules are executable both on a client and server.

96. (Withdrawn) A system, comprising:

means for identifying browser capability;

means for choosing a validation deployment, wherein the validation deployment comprising:

means for determining if a browser supports regular expressions, and if so, providing validation rules to a client;

means for determining if the browser supports non regular expression language, and if so, providing non regular expression language information validation;

means for determining if the browser does not support non regular expression language, and if not, providing regex enabled validation on a server;

means for providing the browser with appropriate network location and validation rules;

means for obtaining information from a user; and

means for validating information with appropriate validation rules stored in a memory device.

97. (Withdrawn) The system of claim 96, wherein the validation rules are imbedded into a web page.

98. (Withdrawn) The system of claim 96, wherein the validation rules are executable both on a client and server.

99. (Withdrawn) Computer executable software code stored on a computer readable medium, the code, comprising:

code for identifying browser capability;

code for choosing a validation deployment, wherein the validation deployment comprising:

code for determining if a browser supports regular expressions, and if so, providing validation rules to a client;

code for determining if the browser supports non regular expression language, and if so, providing non regular expression information validation;

code for determining if the browser does not support non regular expression language, and if not, providing regex enabled validation on a server;

code for providing the browser with appropriate network location and validation rules;

code for obtaining information from a user; and

code for validating information with appropriate validation rules stored in a memory device.

100. (Withdrawn) The medium of claim 99, wherein the validation rules are imbedded into a web page.

101. (Withdrawn) The medium of claim 99, wherein the validation rules are executable both on a client and server.

102. (Withdrawn) An apparatus, the code, comprising:
a memory device having at least one region for storing executable program code;

and

a processor, disposed in communication with the memory device, for executing the program code stored in the memory device, wherein the program code, further comprising:

code to identify browser capability;

code to choose a validation deployment, wherein the validation deployment comprising:

code to determine if a browser supports regular expressions, and if so, provide validation rules to a client;

code to determine if the browser supports non regular expression language, and if so, provide non regular expression information validation;

code to determine if the browser does not support non regular expression language, and if not, provide regex enabled validation on a server;

code to provide the browser with appropriate network location and validation rules;

code to obtain information from a user; and

code to validate information with appropriate validation rules stored in a memory device.

103. (Withdrawn) The apparatus of claim 102, wherein the validation rules are imbedded into a web page.

104. (Withdrawn) The apparatus of claim 102, wherein the validation rules are executable both on a client and server.

105. (New) A method, comprising:

receiving information from a user over a communications network,

including at least a web page request;

identifying a retriever's web browser capabilities;

discerning a web page identifier associated with the web page request;

retrieving customizable inheritable validation rules from a hereditary rules library stored in a memory device based on the web page identifier;

selecting a validation scheme based on the retriever's web browser capabilities, the validation scheme corresponding to a client-side validation if the web browser capability includes regex enablement and to a server-side validation if the web browser does not include regex enablement;

providing a navigation location directing the user to the web page, the navigation location selected based on the validation scheme;

for client-side validation,

imbedding the customizable inheritable validation rules in a web page associated with the web page identifier;

receiving a plurality of inputs to the web page from the user; and

validating the inputs using the retrieved customizable inheritable validation rules in accordance with the validation scheme.